

The FOUNDRY INDUSTRY'S answer to fast, uniform compaction of dry, castable refractory linings in coreless Induction Furnaces.

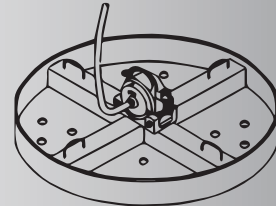
- Homogeneous compaction of refractory is completed in minutes!
- Removable Vibrator serves both Bottom Plate and Expanding Cross Unit
- Hydraulically operated Expanding Cross is available in 5 sizes
- Simple two-step process saves time

OPERATION

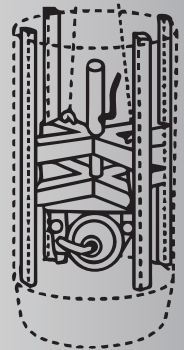
The WORKMASTER® Vibratory-Expanding Cross (WEC) System uses a removable Vibrator to compact both bottom and side refractory linings in coreless induction furnaces. Photo "A" above shows the WEC Hydraulic Model 800 with Vibrator attached, fully-contracted (Shoes and Battens are shown in place). Photo "B" shows the WEC 800 fully-expanded, and "C" shows the smallest unit, Model 300, fully-contracted, without shoes and battens. Two "extender" Shoes, shown at "D", may be used as necessary to increase the fully-expanded size of the WEC Units.



The Bottom Plate with the Vibrator bolted at its center, as shown to the right, is lowered and placed on the dry refractory material previously poured into the bottom of the furnace. This bottom lining is compacted first, then, when complete, the Bottom Plate Assembly is removed.



The Vibrator is then removed from the quick-change bracket on the bottom plate and installed in the bracket on the WEC Unit. A closed-end, cylindrical Lining-Former (the Former) is centered in the furnace, and lowered and fixed in place on the already-compacted bottom lining. Dry refractory material is poured into the space between the Former and furnace wall. The WEC Unit, with Shoes and cut-to-size oak Battens attached, is lowered by hoist to the location where the initial compacting of the wall lining refractory is to take place.



The WEC Unit is then expanded hydraulically until the battens firmly contact the inside of the Former, and then the hoist is slacked off. When the Vibrator is activated, a strong and effective vibrating force (10,400 Force lbs; 11,000 VPM @80 PSI), is transferred through the Former, uniformly compacting the refractory. Depending on furnace height, the WEC Unit is contracted, raised, re-expanded, and vibrated again as required. The easy-to-control Vibrator frequency achieves a homogeneous refractory compaction throughout the lining.

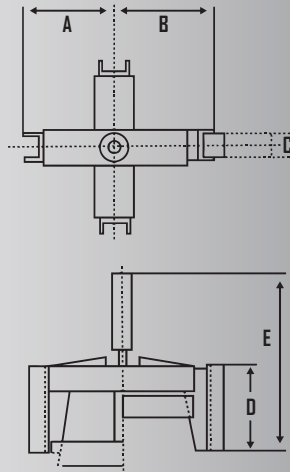
The WEC Unit DOES NOT INCLUDE Lining-Former, Bottom Plate, or Wood Battens. These items should be purchased locally. Existing Formers may be used, but should be fabricated of steel not less than 5/16" thick.

OPERATING DATA		WEC MODELS**				
		300	400	500	800	900
ID LINING-FORMER	INCH	15.16 - 24.61	19.09 - 30.91	23.03 - 37.20	34.84 - 49.02	43.70 - 58.46
AIR PRESSURE (PSI)		80 - 100	80 - 100	80 - 100	80 - 100	80 - 100
AIR CONSUMPTION (CFM)*		60	60	60	60	60
COMPACTION TIME (MINS)		7 - 8	8 - 10	8 - 10	12 - 15***	12 - 15***
BOTTOM COMPACTION TIME (MINS)		8 - 12	8 - 12	8 - 12	8 - 12	8 - 12
WEIGHT, LESS VIBRATOR & BATTENS (LBS)		65	75	100	175	270

* 3/4" ID Hose (Minimum)

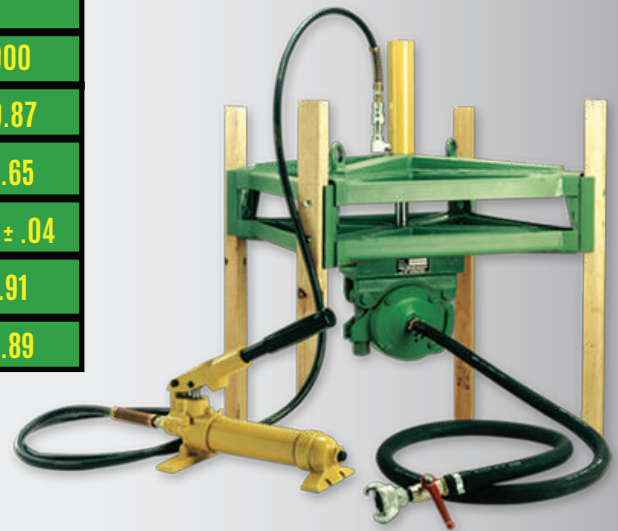
** Based on diameter of Liner, Extension Shoes may be necessary (determined from data sheet).

*** Total for 2 Positions



DIMENSIONS		WEC MODELS**				
		300	400	500	800	900
A	inch	7.09	9.06	11.02	16.93	20.87
B	inch	7.68	9.65	11.61	17.52	21.65
C	inch	1.81 ± .04	1.81 ± .04	1.81 ± .04	1.81 ± .04	1.81 ± .04
D	inch	5.91	5.91	5.91	5.91	5.91
E	inch	21.65	21.65	21.65	21.65	31.89

To convert to millimeters (mm), multiply inches by 25.4



TO ORDER, determine the inside diameter of the Former you intend to use. With this data in hand, simply call or email WORKMASTER or contact AIRMATIC, the Master Distributor. We will determine the exact WEC Furnance Lining Vibrator Cross System model you should have and we will provide full information on price and delivery.

Airmatic Customer Service: customerservice@airmatic.com or 800.332.9770

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